INDEX TO ILLUSTRATIONS

Aldebaran, Occultation of (diagram) 150
American Astronomical Society—
Evanston, Illinois, December 28-30, 1942, Plate III, with key ..... Op. 59
Harvard College Observatory, Cambridge, Massachusetts, May 28-30, 1943, Plate IV, with key ..... Op. 349
Atmosphere, Percentage composition of, at various altitudes 208
Comet 1942 *e* (Oterma) Orbit of 54
f (Whipple) Orbit of 103
Photographs of 153
g, Light curve of 483
Holmes, The expansion of the spherical envelope of 545
variation in brightness of 547
De Revolutionibus, Facsimile of title page of 318
Earth's daily motion, The (diagram) 309
Eaton, Colorado, meteorite, The 276, 277, 278
Eclipse, Annular, of August 1, 1943 (diagram) 31
Diagram of the penumbral lunar, of 1944 February 9 355
July 6 356
August 4 356
December 29 357
path in Alaska on February 4, 1943 28
Total solar, of February 4-5, 1943 (diagram) 30
Eyepieces, Arrangement of lenses in various 194
Frank Schlesinger, 1871-1943, Plate V ..... Op. 409
Herbert Couper Wilson, Plate II ..... Op. 1
Hortensius and Milichius, Laccoliths in the vicinity of 424
Lunar craters, Region of Mare Vaporum 120
Mars, Drawing of prominent features of 503
Meteoric train resembling steam-cloud 210
Meteorite, The Eaton 276, 277, 278
Meteorites, The Tucson, Arizona 513, 514
Milichius and Hortensius, Laccoliths in the vicinity of 424
Music of the Spheres, The 316
Nova Aquilae, 1943, Photographic light curve of 518
Puppis 1942, Light curve of 51, 129
Sagittarii, 1941, Photographic light curve of 284
Occultations, Lunar, Diagrams relating to 442, 443, 444, 445, 446
Payne, William Wallace, Plate I ..... Op. 1
Planets, Paths of, in 1943 ..... 34, 35
Relative position of, on October 13, 1943 389
Popular Astronomy (Facsimile of front cover of first issue) 4
Ptolemaic system (diagram) 313
Pyramid, Plan and elevation of the great 188

INDEX TO ILLUSTRATIONS

Aldebaran, Occultation of (diagram) 150
American Astronomical Society—
Evanston, Illinois, December 28-30, 1942, Plate III, with key ..... Op. 59
Harvard College Observatory, Cambridge, Massachusetts, May 28-30, 1943, Plate IV, with key ..... Op. 349
Atmosphere, Percentage composition of, at various altitudes 208
Comet 1942 *e* (Oterma) Orbit of 54
f (Whipple) Orbit of 103
Photographs of 153
g, Light curve of 483
Holmes, The expansion of the spherical envelope of 545
variation in brightness of 547
De Revolutionibus, Facsimile of title page of 318
Earth's daily motion, The (diagram) 309
Eaton, Colorado, meteorite, The 276, 277, 278
Eclipse, Annular, of August 1, 1943 (diagram) 31
Diagram of the penumbral lunar, of 1944 February 9 355
July 6 356
August 4 356
December 29 357
path in Alaska on February 4, 1943 28
Total solar, of February 4-5, 1943 (diagram) 30
Eyepieces, Arrangement of lenses in various 194
Frank Schlesinger, 1871-1943, Plate V ..... Op. 409
Herbert Couper Wilson, Plate II ..... Op. 1
Hortensius and Milichius, Laccoliths in the vicinity of 424
Lunar craters, Region of Mare Vaporum 120
Mars, Drawing of prominent features of 503
Meteoric train resembling steam-cloud 210
Meteorite, The Eaton 276, 277, 278
Meteorites, The Tucson, Arizona 513, 514
Milichius and Hortensius, Laccoliths in the vicinity of 424
Music of the Spheres, The 316
Nova Aquilae, 1943, Photographic light curve of 518
Puppis 1942, Light curve of 51, 129
Sagittarii, 1941, Photographic light curve of 284
Occultations, Lunar, Diagrams relating to 442, 443, 444, 445, 446
Payne, William Wallace, Plate I ..... Op. 1
Planets, Paths of, in 1943 ..... 34, 35
Relative position of, on October 13, 1943 389
Popular Astronomy (Facsimile of front cover of first issue) 4
Ptolemaic system (diagram) 313
Pyramid, Plan and elevation of the great 188

520.5
P83
v.51

Satellites of Uranus in January, 1944 555
Saturn's, on March 18, 1943 92
Schlesinger, Frank, 1871-1943, Plate V ..... Op. 409
Shadow, Stationary, east and west at equinox 133
Solar spheres, The two (diagrams) 311
SS Cygni, 1942, Light curve of 401
Stellar magnitudes, Diagrams relating to a study of 490, 491, 493, 495
Theophilus, East-west section through crater 418
Triangle, Spherical 143
Venus, Diagram showing motion of, according to Ptolemaic system 331
Visual observer, Color equation of a 128
William Wallace Payne, Plate I ..... Op. 1
Wilson, Herbert Couper, Plate II ..... Op. 1

GENERAL INDEX

Air navigation for global war 56
Amateurs, Notes from 110, 168, 574
American Association of Variable Star Observers, Variable star notes from the, *Leon Campbell* 50, 99, 226, 281, 343, 400, 459, 518, 568
American Astronomical Society, Meeting of the 286
The sixty-ninth meeting of the, *Dean B. McLaughlin* 59
seventieth meeting of the, *Dean B. McLaughlin* 349
Around the year 1943 with sun, moon, and planets, *Alice H. Farnsworth* 29
Asteroid notes, *Hugh S. Rice* 93, 215, 333, 389, 506, 556
Ashbrook, Joseph, The brightness of comet 1942*g* Whipple-Fedtke 362
Astronomers needed, Junior 574
Astronomical literature, The committee for the distribution of (C.D.A.L.) .. 524
refraction, Approximate determination of, *Nelson B. Conkwright* 358
society, anniversay, Louisville 574
Rittenhouse 56, 112, 230
summaries 469
Astronomy, Copernicus, the founder of modern, *Curvin H. Gingrich* 297
Fifty years of progress in, *Otto Struve* 469
in the service of culture, *Roy K. Marshall* 19, 67
of position, *H. R. Morgan* 527
Popular—The first fifty years, *Curvin H. Gingrich* 1, 63
Report of the conference of teachers of, at Cambridge, Massachusetts, *Marjorie Williams* 352
Aurora borealis of August 30-31, 1943, *N. T. Bobrovnikoff* 438
of February 25, 1943, The, *Lewis J. Boss* 230
Baldwin, Ralph B., The meteoritic origin of lunar structures 117
Barnes, Virgil E., and *E. H. Sellards,* Progress in excavating the Odessa, Texas, meteorite crater 224
Barney, Ida, Frank Schlesinger 409
Bobrovnikoff, N. T., Aurora borealis of August 30-31, 1943 438
The brightness of comet 1942*g* (Whipple) 481
periodic comet Holmes (1892 III) 542
Book reviews—
Air Navigation for Beginners, by Scott G. Lamb 348
A Start in Meteorology, Armand N. Spitz 348
Astronomical Navigation Tables (H. O. No. 218) 406
Society of the Pacific (Leaflets) 467

Astronomy, Maps and Weather, by C. C. Wylie..... 56
Atoms, Stars, and Nebulae, by Leo Goldberg and Lawrence H. Aller.... 289
Celestial Navigation for Aviators, by Clarence H. True..... 406
Learning to Navigate, by P. V. H. Weems..... 525
Map Reading and Avigation, by Richard M. Field and Harlan T. Stetson 56, 232
Navigation, by J. C. Kingsland and D. W. Seager..... 525
Norton's Star Atlas (Ninth edition)..... 524
Odd Numbers, or Arithmetic Revisited, by Herbert McKay..... 289
Publications received 115, 232, 290, 576
Philips Chart of the Stars 576
Science from Shipboard (Various authors) 575
Solar Relations to Weather, by H. H. Clayton..... 526
The Origin of the Carolina Bays, by Douglas Johnson.....114, 167
Practical Essentials of Pre-Training Navigation, by William T. Skilling and Robert S. Richardson..... 56
The Revolving Heavens, by Reginald L. Waterfield..... 115
The Story of the Moon, by Clyde Fisher..... 347
Weather, An Introductory Meteorology, by W. G. Kendrew..... 348
Boss, Lewis J., The aurora of February 25, 1943..... 230
total solar eclipse of January 25, 1944..... 501
Bouton, Tilton C. H., Reminiscences..... 257
Calder, Ritchie, Science comes to earth..... 345
Campbell, Leon, Variable star notes from the American Association of Variable Star Observers.....50, 99, 226, 281, 343, 400, 459, 518, 568
Canopus, Note on the parallax of, *Peter van de Kamp*..... 172
Color equation of a visual observer, The, *Sergei Gaposchkin*..... 128
Colours, The New Zealand method of observing star, *A. G. C. Crust*..... 346
Comet 1942 *a* (Whipple-Bernasconi-Kulin) 464
b (Oterma) 464
c (Vaisala) 464
d (Skjellerup) 464
e (Forbes) 464
e (*f*) (Oterma) 53, 103, 154, 226, 285, 336
f (Oterma) 464
f (*g*) (Whipple).....102, 153, 225, 285, 336, 404
g (Whipple), The brightness of, *N. T. Bobrovnikoff*..... 481
(Whipple-Fedtke), The brightness of, *Joseph Ashbrook*..... 362
(Whipple-Fedtke-Tevzadze) 464
1943 *a* (Oterma) 335, 404, 463
Comas Solá 572
Daniel 405, 464, 574
d'Arrest 285, 405, 464, 572
Diamaca-Peltier 523, 573
Holmes (1892 III), The periodic, *N. T. Bobrovnikoff* 542
Neujmin 55, 104, 285
Reinmuth 55, 104, 285
Schaumasse 405, 464, 574
Schwassmann-Wachmann I 55, 104, 405, 463, 523, 573
Wolf I (Periodic) 54, 103

Comet notes, *G. Van Biesbroeck*.....53, 102, 153, 225, 285, 335, 404, 463, 523, 572
Comets 1941 *d* and 1942 *a*, Observations of brightness of, *Alice H. Farnsworth* 252
The physical chemistry of, *P. Swings*..... 412
Communications and comments.....104, 169, 345
Conkwright, Nelson B., Approximate determination of astronomical refraction 358
Contributions of the Society for Research on Meteorites, *Frederick C. Leonard* 44, 96, 161, 222, 273, 339, 397, 453, 511, 563
Copernicus and modern revolutions, *Joel Stebbins*..... 291
science; from yesterday until tomorrow, *Harlan True Stetson* 425
Commemoration, Nicolas 172
the founder of modern astronomy, *Curvin H. Gingrich*..... 297
Copernican quadricentennial 287
Fels Planetarium celebration of the, *Roy K. Marshall* 316
in Carnegie Hall, New York..... 323
Milwaukee 322
observed by the Joliet Astronomical Society..... 466
Correction 406
Cosmos, *O. R. Walkey*..... 106
Craters, The origin of the lunar, *Roy K. Marshall*..... 415
Crust, A. G. C., The New Zealand method of observing star colours..... 364
Culture, Astronomy in the service of, *Roy K. Marshall*.....19, 67
Determination of the course at any point on a great-circle voyage, The, *Frederick C. Leonard* 143
Dipper, A drink from the little (poem) *Cabot Barber*..... 174
Discoverer of the Willamette, Oregon, siderite, Death of..... 167
Double-star components, Table for moduli and parallaxes and magnitudes of, *Frederick C. Leonard* 551
Easter dates, Uncommon, *Alexander Pogo*..... 254
Eclipse, A search for physical changes on the moon during the lunar, *Walter H. Haas* 264
of January 25, 1944, The total solar, *Lewis J. Boss*..... 501
The total, of the sun visible in Alaska 1943 February 4, *G. Van Biesbroeck* 28
Eclipses of 1944, The four penumbral lunar, *Alexander Pogo* 354
Episode, Notes on a forgotten, *Theodore R. Treadwell*..... 497
Equinox, A simple method of determining the date of, *C. C. Wylie*..... 131
Eyepieces, Telescopic magnification and, *H. B. Rumrill*..... 189
Farnsworth, Alice H., Around the year 1943 with sun, moon, and planets..... 29
Observations of brightness of comets 1941 *d* and 1942 *a* 252
Planet notes...39, 90, 147, 212, 269, 329, 386, 440, 502, 553
Summary of sun-spot observations at Mount Holyoke College, 1942 112
Farrington's "Meteorites" reduced, Prices of..... 50
Fels Planetarium celebration of the Copernican quadricentennial, *Roy K. Marshall* 316
Fifty years of progress in astronomy, *Otto Struve*..... 469
Frank Schlesinger, *Ida Barney*..... 409
Gaposchkin, Sergei, The color equation of a visual observer..... 128

General notes.....55, 112, 172, 229, 285, 347, 405, 465, 524, 574
Genesis (poem), *J. H. Rush*..... 363
Gingrich, Curvin H., Copernicus, the founder of modern astronomy..... 297
Popular Astronomy—The first fifty years.....1, 63
Haas, Walter H., A search for physical changes on the moon during a lunar eclipse 264
Concerning possible lunar meteoric phenomena..... 397
Herbig, George H., A study of the multiple meteoritic falls of the world..... 455
Hurd, Harry Elmore, A memorial to Miss Vera M. Gushee..... 169
Lafleur, Laurence J., Marvelous voyages—V, H. G. Wells' The first Men in the Moon—Part I..... 76
Errors in V..... 80
VI, H. G. Wells' The First Men in the Moon—Part II..... 139
Errors in VI..... 145
VII, H. G. Wells' The War of the Worlds 359
Errors in VII..... 384
VIII, H. G. Wells' The Time Machine 434
Erros in VIII..... 438
Surface gravity and behavior..... 197
La Paz, Lincoln, Remarks on four notes recently published by C. C. Wylie... 339
The tenth anniversary message from the president of the Society 453
Leonard, Frederick C., Contributions of the Society for Research on Meteorites.....44, 96, 161, 222, 273, 339, 397, 453, 511, 563
Some symbols recommended for use in the classification of meteorites..... 222
Statistical studies of the meteoritic falls of the world 44, 161
Tables for moduli and parallaxes and magnitudes of double-star components 551
The determination of the course at any point on a great-circle voyage 143
Light from the stars, Measuring the, *L. V. Robinson*..... 488
Loess, Additional note on the origin of, *J. B. Penniston*..... 170
Lunar craters, The origin of the, *Roy K. Marshall*..... 415
structures, The meteoritic origin of, *Ralph B. Baldwin*..... 117
McConkey, George M., and *W. Carl Rufus*, A construction substitute for Pi in the Great Pyramid..... 185
McGough, P. J., References on the early history of the Tucson, Arizona, meteorites 511, 563
McLaughlin, Dean B., The sixty-ninth meeting of the American Astronomical Society 59
seventieth meeting of the American Astronomical Society 349
Makemson, Maud Worcester, Changing ideas of the universe..... 307

Marshall, Roy K., Astronomy in the service of culture.....19, 67
Fels Planetarium celebration of the Copernican quadricentennial 316
The origin of the lunar craters (a summary)..... 415
Marvelous Voyages—V, H. G. Wells' The First Men in the Moon—Part I, *Laurence J. Lafleur* 76
Errors in V 80
VI, H. G. Wells' The first Men in the Moon—Part II, *Laurence J. Lafleur* 139
Errors in VI 145
VII, H. G. Wells' The War of the Worlds. *Laurence J. Lafleur* 359
Errors in VII 384
VIII, H. G. Wells' The Time Machine, *Laurence J. Lafleur* 434
Errors in VIII 438
Memorial to Miss Vera M. Gushee, A, *Harry Elmore Hurd*..... 169
Meteor, A possible lunar..... 96
crater, Calculations on the probable mass of the object which formed, *C. C. Wylie* 97
Second note, *C. C. Wylie* 158
in Arizona, Applying mine-crater formulas, *C. C. Wylie*..... 220
Progress in excavating the Odessa, Texas, *E. H. Sellards* and *Virgil E. Barnes*..... 224
notes from the American Meteor Society, *Charles P. Olivier*.....
.....41, 94, 155, 217, 271, 336, 392, 450, 508, 558
Meteoric phenomena, Concerning possible lunar, *Walter H. Haas*..... 397
Meteorite crater in North Africa, A possible new, *H. H. Nininger*..... 96
The Eaton, Colorado, *H. H. Nininger*..... 273
The South Strafford, Vermont (siderite)..... 49
What constitutes a genuine, *H. H. Nininger*..... 223
Meteorites, A spectrographic study of (review)..... 225
Contributions of the Society for Research on, *Frederick C. Leonard*.....44, 96, 161, 222, 273, 339, 397, 453, 511, 563
References on the early history of the Tucson, Arizona, *P. J. McGough* . . .511, 563
Some symbols recommended for use in the classification of, *Frederick C. Leonard*..... 222
Meteoritic falls of the world, A study of the multiple, *George H. Herbig*... 455
Statistical studies of the, *Frederick C. Leonard* 44, 161
origin in the lunar structures, The, *Ralph B. Baldwin*..... 117
Meteors and meteorites.....41, 94, 155, 217, 271, 336, 392, 450, 508, 558
Oxyhydrogen combustion a possible factor in luminous phenomena of, *Ben Hur Wilson*..... 202
Moon, Changes on the, during a lunar eclipse, *Walter H. Haas*..... 264
phases correlated with iris blooms..... 230
Morgan, H. R., Astronomy of position 547
Navigation with a watch—I and II, *Charles H. Smiley*.....136, 245

Nininger, H. H., A possible new meteorite crater in North Africa..... 96
The Eaton, Colorado, meteorite..... 273
What constitutes a genuine meteorite?..... 223
Notes on a forgotten episode, *Theodore R. Treadwell*..... 497
Observatory, Northfield 113
Observer's Bulletin, Texas..... 465
Occultation predictions.....40, 93, 152, 216, 270, 334, 391, 449, 505, 557
Olivier, Charles P., Meteor notes from the American Meteor Society.....
.....41, 94, 155, 217, 271, 336, 392, 450, 508, 558
Patrons and fellows elected..... 50
Penniston, J. B., Additional note on the origin of loess..... 170
Photographic determinations of stellar masses, *Peter van de Kamp*..... 175
Planet notes, *Alice H. Farnsworth*.....39, 90, 147, 212, 269, 329, 386, 440, 502, 553
Pleione, The story of, *Otto Struve*..... 233
Pogo, Alexander, The four penumbral lunar eclipses of 1944..... 354
Uncommon Easter dates..... 254
Popular Astronomy—The first fifty years, *Curvin H. Gingrich*.....1, 63
Pyramid, A construction substitute for Pi in the Great, *George M. McConkey*
and *W. Carl Rufus* 185
Refraction, Approximate determination of astronomical, *Nelson B. Conkwright* 358
Remarks on four notes recently published by C. C. Wylie, *Lincoln La Paz*... 339
Reminiscences, *Tilton C. H. Bouton*..... 257
Reviews of Johnson's "The Origin of the Carolina Bays" 568
Rice, Hugh S., Asteroid notes.....93, 215, 333, 389, 506, 556
Robinson, L. V., Measuring the light from the stars..... 488
Rosebrugh, D. W., A tiny telescope..... 110
Rufus, W. Carl, and *George M. McConkey,* A construction substitute for Pi
in the Great Pyramid..... 185
Rumrill, H. B., Telescopic magnification and eyepieces..... 189
Rush, J. H., Genesis (poem)..... 363
Schlegel, Richard, Jr., A view of time..... 83
Schlesinger, Frank, *Ida Barney*..... 409
Science comes to earth, *Ritchie Calder*..... 345
talent search scholarships awarded..... 287
Third nation-wide 467
Scientific aid positions, Federal government will fill technical and..... 173
Sellards, E. H., and *Virgil E. Barnes,* Progress in excavating the Odessa,
Texas, meteorite crater..... 224
Siderites, The Cavour, South Dakota..... 567
Smiley, Charles H., Navigation with a watch—I..... 136
II 245
Star colours, The New Zealand method of observing them, *A. G. C. Crust*.. 364
Stars from afar, Our first-magnitude, *O. R. Walkey*..... 78
Measuring the light from the, *L. V. Robinson*..... 488
Statisticians needed for civilian war service, Economists and..... 174
Steamship, George E. Hale, The..... 113
Maria Mitchell 231
Simon Newcomb 231
Stebbins, Joel, Copernicus and modern revolutions..... 291
Stellar masses, Photographic determinations of, *Peter van de Kamp*..... 175

Stetson, Harlan True, Copernicus and science; from yesterday until tomorrow 425
Struve, Otto, Fifty years of progress in astronomy 469
The story of Pleione 233
Sun, A rose colored image of the, *C. C. Wylie* 436
moon, and planets, Around the year 1943 with, *Alice H. Farnsworth* 29
spot observations at Mount Holyoke College, 1942, Summary of, *Alice H. Farnsworth* 112
Surface gravity and behavior, *Laurence J. Lafleur* 197
Swings, P., The physical chemistry of comets 412
Teachers of astronomy at Cambridge, Massachusetts, Report of the conference of, *Marjorie Williams* 352
Telescope, A tiny, *D. W. Rosebrugh* 110
Telescopic magnification and eyepieces, *H. B. Rumrill* 189
Tenth-anniversary message from the president of the Society, The, *Lincoln La Paz* 453
Time, A view of, *Richard Schlegel, Jr.* 83
Treadwell, Theodore R., Notes on a forgotten episode 497
Universe, Changing ideas of the, *Maud Worcester Makemson* 307
Van Biesbroeck, G., Comet notes 53, 102, 153, 225, 285, 335, 404, 463, 523, 572
The total eclipse of the sun visible in Alaska 1943 February 4 28
van de Kamp, Peter, Notes on the parallax of Canopus 172
Photographic determinations of stellar masses 175
Variable star notes from the American Association of Variable Star Observers, *Leon Campbell* 50, 99, 226, 281, 343, 400, 459, 518, 568
Visit, An unprofitable 465
Walkey, O. R., Cosmos 106
Our first-magnitude stars from afar 78
Williams, Marjorie, Report of the conference of teachers of astronomy at Cambridge, Massachusetts 352
Wilson, Ben Hur, Oxyhydrogen combustion a possible factor in luminous phenomena of meteors 202
Wylie, C. C., Applying mine-crater formulas to meteor crater in Arizona 220
A rose colored image of the sun 436
simple method of determining the date of the equinox 131
Calculations on the probable mass of the object which formed meteor crater 97
Second note 158